



## 7.3 Cultural Resources

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The U.S. Department of Energy (DOE), Richland Operations Office, established a cultural resources program in 1987 that has been managed by the Hanford Cultural Resources Laboratory as part of Pacific Northwest National Laboratory (PNL-6942). Pacific Northwest National Laboratory, Bechtel Hanford, Inc., and CH2M Hill Hanford, Inc. provided support to DOE for the cultural resources program on

the Hanford Site throughout 1998. Thus, management of archaeological, historical, and traditional cultural resources at the Hanford Site was provided in compliance with the National Historic Preservation Act of 1966, Native American Graves Protection and Repatriation Act of 1990, Archaeological Resources Protection Act of 1979, and American Indian Religious Freedom Act of 1978.

### 7.3.1 Native American Involvement

Members of the Confederated Tribes of the Umatilla Indian Reservation, Yakama Indian Nation, Nez Perce Tribe, and Wanapum Band were actively involved in the cultural resources program during 1998. Monthly cultural resource issues meetings provided a venue for the exchange of information between DOE, tribal staff members, and site contractors about projects and activities on the Hanford Site. These meetings included discussions of site-wide projects dealing with a wide range of topics: the groundwater/vadose zone, 1100 Area land transfer, a new boat launch at Vernita Bridge, Office of River Protections Project W-519, and Hanford's native plants. Tribal staff and site contractors worked together during the completion of several field surveys to identify and record cultural features, sites, and landscapes in advance of new construction (an excavation at the 100-KR-4 Operable Unit pump-and-treat project) and monitoring of numerous projects requiring excavation during the year. Bechtel Hanford, Inc. contracted with the Nez Perce Tribe for the

identification and propagation of traditional plants and with the Confederated Tribes of the Umatilla Indian Reservation for a native plant nursery. In addition, one Wanapum Band member was hired by Pacific Northwest National Laboratory and trained to work as an archaeological technician and assist DOE with cultural resources management activities.

Several other activities involving tribes and tribal expertise were conducted during 1998. These activities included a technical exchange held for members in each of four tribes to present summarizations of their overall involvement in cultural resources efforts at Hanford, a tour of the Hanford Site's environmental restoration projects for Nez Perce Elders and Tribal Council members, a Traditional Places Visitation led by Wanapum Elders for regional tribes, and an Archaeological Resources Protection Act training workshop conducted by the Confederated Tribes of the Umatilla Indian Reservation for law enforcement personnel.

### 7.3.2 Public Involvement

The cultural resources staff of the Pacific Northwest National Laboratory, Bechtel Hanford, Inc., and CH2M Hill Hanford, Inc. assisted DOE in organizing and conducting public meetings for reviewing

the implementation of DOE's programmatic agreement for building mitigation activities (DOE/RL-96-77) and the sitewide treatment plan (DOE/RL-97-56, Rev. 1). There were discussions of the future uses of



historic buildings at the Hanford Site; one meeting specifically focused on the reuse of historic structures in the 300 Area to preserve a selected number to maintain the integrity of the Manhattan Project/Cold War Era Historic District. Additional meetings focused on assessing historic buildings for the purpose of identifying those suitable for public interpretation and educational/museum purposes.

Discussions were held at public issues exchange workshops on a variety of cultural resources issues, including National Landmark approach for the Hanford Site, transition of the 1100 Area from DOE to the Port of Benton, and potential of heritage tourism at the Hanford Site (i.e., a tour program that envisioned utilization of the defunct Hanford Site railroad). These discussions broadened to include strong

support for the use of B Reactor as a publicly accessible museum, including the rehabilitation of the nearby historic cobblestone structure known as Bruggeman's Warehouse into an interpretive center for the site's cultural resources.

Public involvement activities are important components of a cultural resources management program. To accomplish this goal, DOE developed mechanisms that allow the public access to cultural resources information and the ability to comment and make recommendations concerning the management of cultural resources on the Hanford Site. In 1998, these mechanisms were woven into a draft involvement plan that includes input provided by the public and Hanford Site staff over the past several years.

### 7.3.3 Section 106 Activities

Pursuant to Section 106 of the National Historic Preservation Act, cultural resources reviews must be conducted before each proposed ground disturbance or building alteration/demolition project can take place. Cultural resources reviews are required to identify properties that may be eligible for or listed in the National Register of Historic Places within the proposed project area and evaluate the effect the proposed project may have on any such property.

During 1998, 150 cultural resources reviews were requested (Figure 7.3.1). A majority of the reviews involved project areas that had been previously surveyed or were located in previously disturbed ground. Of the projects reviewed, 6 were also monitored during the construction phase, 7 required archaeological surveys, and 18 involved building modification or

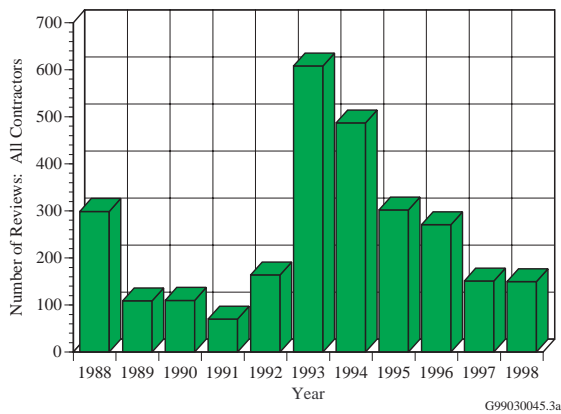
demolition. The surveys covered a total of 584 ha (1,444 acres) and resulted in the discovery of 5 isolated finds and 23 archaeological sites (Figure 7.3.2).

A survey of 256 ha (632 acres) was done in preparation for the land transfer of the 1100 Area from DOE to the Port of Benton. A total of 20 archaeological sites were recorded, including sites relating to homesteading and farming (1905 to 1943) and sites related to development of the Hanford Site (post 1943). Fields, irrigation canals, and roadways related to the early twentieth century Richland, Washington farming community are apparent in 1948 aerial photographs (Figure 7.3.3), as is the encroaching development related to the Hanford Site.

### 7.3.4 Section 110 Activities

Section 110 of the National Historic Preservation Act requires that federal agencies undertake a program to identify, evaluate, and nominate historic properties and consider the use and reuse of historic

buildings or structures. Staff of DOE, Bechtel Hanford, Inc., and Pacific Northwest National Laboratory applied for a "Save America's Treasures" Millennium Grant to fund renovation of the historic B Reactor as



**Figure 7.3.1.** Cultural Resources Reviews Requested Each Calendar Year



**Figure 7.3.2.** Historic Sites are Commonly Found During Surveys Conducted at the Hanford Site

a publicly accessible museum and the historic Bruggeman Warehouse as an interpretive center. Agencies are required to maintain and manage historic properties in a way that considers preservation of their values and ensures that preservation-related activities are completed in consultation with other agencies, the tribes, and the general public.

In 1998, management activities conducted to fulfill Section 110 requirements included continual implementation of the programmatic agreement for the built environment (DOE/RL-96-77) and application of the Hanford Site curation strategy for the purpose of identifying, evaluating, and preserving Manhattan Project and Cold War era artifacts



**Figure 7.3.3.** 1948 Aerial Photograph of the Former 1100 Area Showing Irrigated Farms and Hanford Development



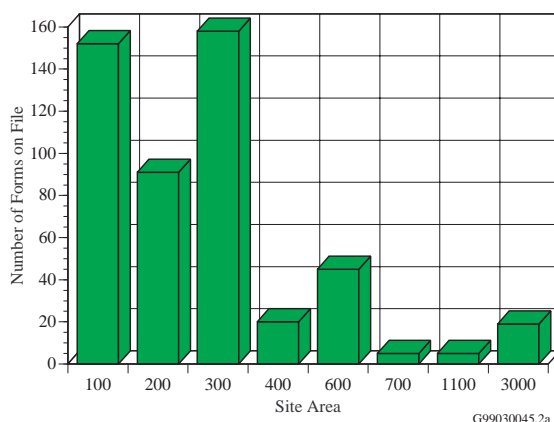
(DOE/RL-97-71). Since the initiation of Section 110 activities on the Hanford Site, 495 buildings/structures have been documented on historic property inventory forms and are on file at the Hanford Cultural Resources Laboratory (Figure 7.3.4).

The Vernita Section 110 Survey, conducted in 1998, resulted in an intensive survey of 744 ha (1,838 acres) of the Hanford Site and documentation of 48 archaeological sites and 19 isolated finds associated with historic farmsteads and prehistoric lithic scatters. This survey represented a cooperative approach to investigations of previously unsurveyed lands on the site. The Yakama Indian Nation, Wanapum Band, Nez Perce Tribe, DOE, Bechtel Hanford, Inc., CH2M Hill, Inc., and Pacific Northwest National Laboratory each contributed staff time to the project.

National Register sites were also monitored in a continuing effort to assess impacts caused by erosion associated with high water levels along the Columbia River.

#### 7.3.4.1 Historic District

During 1998, implementation of the building mitigation project continued to carry out the



**Figure 7.3.4.** Hanford Buildings and Structures Documented with a Washington State Historic Property Inventory Form

stipulations of the programmatic agreement (DOE/RL-96-77) and as outlined in the sitewide treatment plan (DOE/RL-97-56, Rev. 1). The plan is stipulated in the programmatic agreement and directs the production of a mitigation document that chronicles the history of the Hanford Site during the Manhattan Project and Cold War periods.

In 1996, the Hanford Site Manhattan Project and Cold War Era Historic District was established, and 185 buildings, structures, and complexes were identified as contributing properties recommended for mitigation. Subsequent public meetings and staff evaluations resulted in additional properties in the 600, 700, and former 1100 Areas, including the Hanford Site railroad, being identified as contributing properties within the historic district and recommended for mitigation, bringing the total to 190 (Figure 7.3.5). Of the buildings, structures, and complexes recommended for mitigation, 139 have been documented according to mitigation standards identified in the sitewide treatment plan (DOE/RL-97-56, Rev. 1). Four historic properties, including B Reactor, have been documented at the Historic American Engineering Record level, 29 have been documented with Expanded Historic Property Inventory Forms, while standard Historic Property Inventory Forms have been prepared for the remaining 106 buildings and structures.

Approximately 900 buildings and structures have been identified as either contributing properties with no individual documentation requirement (not selected for mitigation) or as noncontributing/exempt buildings and structures and will be documented in a database maintained by DOE. According to the programmatic agreement (DOE/RL-96-77), certain property types such as mobile trailers, modular buildings, storage tanks, towers, wells, and structures with minimal or no visible surface manifestations are exempt from the identification and evaluation requirement.



**Figure 7.3.5.** 105-C Reactor, One of Several Structures Included in the Hanford Site Manhattan Project and Cold War Era Historic District

#### 7.3.4.2 Hanford Curation Strategy

The application of the curation strategy for artifacts and records associated with the Hanford Site Manhattan Project and Cold War Era Historic District continued in 1998. The strategy is stipulated in the programmatic agreement (DOE/RL-96-77), which directs DOE to assess the contents of Hanford's historic buildings and structures prior to the commencement of deactivation, decontamination, or decommissioning activities. The purposes of these assessments are to identify and preserve any artifacts (e.g., control panels, signs, scale models, machinery) that may have interpretive or educational value as exhibits within national, state, or local museums. The assessments are accomplished by conducting walkthroughs of the contributing properties within the historic district by teams made up of cultural resources specialists, historians, archivists/curators, and facility experts. Fifteen assessments/walkthroughs were conducted in 1998, including several facilities in the Plutonium Finishing Plant, DR and F Reactors,

and five buildings in the former 1100 Area. Staff of Pacific Northwest National Laboratory and DOE participated in the assessment process that contributed to the transfer of the 1100 Area and the railroad.

In 1998, DOE and the Columbia River Exhibition of History, Science, and Technology assembled a team of historians, curators, cultural resources specialists, and Hanford retirees for the purposes of evaluating the makeup and condition of the Manhattan Project/Cold War era artifact collection and DOE's curation strategy and developing a new collection management policy.

DOE's archaeological collections and associated records continued to be housed in Pacific Northwest National Laboratory's repository during 1998. A draft management plan that deals specifically with archaeological collections was developed in 1998 to guide access to and uses of the collections and to provide guidelines for acquisition and deaccessioning processes.



#### 7.3.4.3 Locke Island Monitoring

Locke Island, in the Hanford Reach of the Columbia River, contains some of the best-preserved evidence of prehistoric village sites extant in the Columbia Basin and is included within the Locke Island National Register Archaeological District. Since 1995, field monitoring of this large island continues. The erosion along the northeastern shoreline of Locke Island and also along the entire Hanford

Reach was substantial as a result of sustained high waters during the spring floods of 1997. The monitoring includes the rates of erosion and associated impacts to archaeological features. During 1998, the highest loss recorded at any one monitoring transect was 3.1 m (10.4 ft). A summary of monitoring efforts at Locke Island was published in PNNL-11970 and documents the geologic history of the island, the erosional history of the past few years, and the cultural materials recorded during monitoring trips.

#### 7.3.5 Education and Research

Educational activities associated with the cultural resources program in 1998 included presenting lectures to groups, ranging from public school classrooms to civic groups, colleges, and professional societies. Several symposia were organized throughout the Pacific Northwest region to present DOE's cultural resources management techniques to professional groups and societies. The annual cultural resources forum, sponsored by the DOE Federal Preservation Office, was held at a professional conference in Seattle, Washington, and was attended by staff of Pacific Northwest National Laboratory, Bechtel Hanford, Inc., and DOE. Washington's Archaeology Month provided educational opportunities in the form of tours, lectures, social gatherings, and workshops for residents of the Tri-Cities' area through the efforts of staff and professionals from the East Benton County Historical Society; Columbia River

Exhibition of History, Science, and Technology; Confederated Tribes of the Umatilla Reservation; City of Richland; DOE; Pacific Northwest National Laboratory; CH2M Hill, Inc.; and Bechtel Hanford, Inc.

Pacific Northwest National Laboratory participated in the Associated Western Universities, Inc., Northwest program by hosting a student intern involved in field and laboratory work with Hanford Cultural Resources Laboratory staff.

Research activities continued as part of compliance work. Research in the field of archaeology and history focused on archaeological site preservation and protection and documentation of the built environment of the Manhattan Project and Cold War periods.